



OKACOM

The Permanent Okavango River Basin Water Commission
Comissão Permanente das Águas da Bacia Hidrográfica do Rio Okavango



Support to the Cubango-Okavango Strategic Action Programme (SAP) Implementation

BACKGROUND

The Cubango-Okavango River Basin (CORB) remains a relatively undisturbed, with near-pristine ecological and environmental status due to limited socio-economic development. The CORB ecosystems currently supports predominantly rural communities who practice subsistence agriculture and also subsist on natural resources harvesting in particular fisheries, game, wild fruits and wild vegetables. Meanwhile the tourism potential of the basin remains enormous due to its high ecological integrity, outstanding biodiversity and a network of channels and deep lagoons, and vast floodplains. Tourism activities are currently limited in the upper catchment (Angola), while significant tourism activities are currently on-going in the Okavango Delta with minimal ecological and environmental impacts. However, there is evidence that pressure to harness the CORB's resources through various large scale water development projects aimed at generating significant economic benefits is increasing. According to a recent Multi-Sectorial Opportunity Investment Analysis for the CORB, potential future water development schemes which may have adverse impact on the CORB ecosystems and its water resources include hydropower dams, mining and large scale irrigated agriculture. To facilitate coordinated management of the CORB, the three riparian states, Angola, Botswana and Namibia are advised by the Permanent Okavango River Basin Water Commission (OKACOM) on matters relating to the conservation, development and utilisation of water resources in the CORB.

In response to the apparent socio-economic development pressure, the United Nations Development Programme (UNDP) with finance from the Global Environment Facility (GEF) is contributing towards the implementation of the OKACOM 20 years Strategic Action Programme (SAP) through a project titled "Support to the Cubango-Okavango River Basin Strategic Action Programme Implementation", hereafter referred to as the SAP Implementation Project. The Project covers various aspects which include enhancing the OKACOM governance instruments, improving the OKACOM Secretariat administration and management instrument, demonstration of environmental



Collecting water quality data in the Cubango-Okavango River Basin

conscious livelihoods initiatives and improvement of water resources management capacity within the CORB. The SAP Implementation Project, which is currently approaching mid-term, has realised significant progress in various aspects as summarized below.

ENHANCING OKACOM GOVERNANCE AND ADMINISTRATIVE INSTRUMENTS

With support from the SAP Implementation Project, OKACOM is currently reviewing several key governance and administrative instruments which include the 1994 OKACOM Agreement, the OKACOM Communication Strategy, the OKACOM Administration Policy, OKACOM Procurement Policy, Asset Management Policy and IT Policy document. The project is also contributing to the on-

going review of the Human Resources Policies and Procedures which in being financed by the USAID Resilient Waters Program. These reviews and revisions are at different stages. The review of the 1994 OKACOM Agreement and Communication Strategy are currently at the scoping phase, while procurement for consultants who will revise the other governance instruments is at an advanced stage. With support from the SAP Implementation Project, OKACOM recently revamped its Website, which will now offer an engaging and up to date platform to create awareness, provide information and resources about the SAP Implementation to a wide spectrum of stakeholders

STRENGTHENED TECHNICAL CAPACITY OF THE OKACOM FOR JOINT TRANSBOUNDARY WATER RESOURCES MANAGEMENT

The SAP Implementation Project significantly contributed to the improvement of technical capacity of OKACOM towards joint management of the CORB. The project resuscitated very important OKACOM technical committees first by reviewing the Terms of References of all the committees and facilitating the assemblage of those committees. Currently the Water Resources Technical Committee (WRTC) and the Institutional Policy Development Technical Committee are fully functional and very instrumental in dispatching the OKACOM mandate courtesy support from SAP Implementation Project. These committees were instrumental for the development of OKACOM SAP M&E Framework and OKACOM Notification, Consultation and Negotiation Guidelines with support from GIZ; Data Sharing Procedures currently under finalization with support from the EU and the Environmental Monitoring Framework with support from UNDP-GEF SAP Implementation Project ongoing.



WRTC at the end of a Joint Monitoring activity

DEMONSTRATION OF ENVIRONMENTAL CONSCIOUS LIVELIHOODS INITIATIVES

Generally, the basin is inhabited by poor rural communities who depend entirely on natural resources for livelihoods. In recognition of the importance of natural resources-based livelihood activities and their potential to degrade the environment, the SAP Implementation Project is supporting OKACOM in demonstrating environmentally conscious livelihoods and socio-economic development in the CORB guided by the basic principles of Integrated Water Resources Management (IWRM). OKACOM demonstration projects are therefore guided by Global Water

Partnership (GWP) definition of IWRM which sees it as “a process which promotes the coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems”. To this end, OKACOM is implementing six (6) livelihoods demonstration projects identified by member states; with the aim to advocate for uplifting of livelihoods of basin communities by improving socio-economic status through harnessing natural resources in a manner that will have minimum adverse impacts to and enhanced protection of the basin ecosystem. These demonstration projects are at varying stage towards completion.

I. HORTICULTURAL PRODUCTION IN MAUN/ OKAVANGO THROUGH CLIMATE-SMART AGRICULTURE PRACTICES

In collaboration with Ministry of Agricultural Development and Food Security (MADFS), OKACOM is demonstrating appropriate Horticultural Production within the vicinity of Maun and Shakawe by addressing barriers that hinder good quality horticultural production and ensuring appropriate water resources management practices. Barriers to horticultural production include lack of knowledge on climate smart agriculture practices, poor farming techniques, lack of coordinated cropping schedules and high scarcity of water. This demonstration project contributed significantly towards production of high-quality vegetables capable of meeting high quality standards demanded by the high-end tourism market. The project successfully supported farmers with appropriate climate resilient infrastructures that enabled them to produce higher value crops all year to sustain market demand.

Critical climate resilient infrastructure received by farmers include shallow solar powered well points and equipping of existing boreholes with solar power system, water storage tanks, shade nets and drip lines.



Maun horticulture mentor guiding demonstration farmer



Installation of electric pumping system for shallow groundwater abstraction

In addition, farmers are benefiting significantly from mentorship provided by an experienced horticulture expert who was engaged by the OKACOM through a local NGO. Important technical guidance and support provided by the horticulture mentor include identifying and installing appropriate climate resilient infrastructure market engagements to identify higher value vegetables demand and recommendation to farmers, development of cropping calendars, soil management, pest control, records management, linking farmers to real and potential markets.



The Maun Horticulture farmers mentor handing over farming inputs to a demonstration farmer

II. ENHANCING CLIMATE CHANGE RESILIENCE THROUGH ALTERNATIVE AGRICULTURAL PRACTICES IN CALAI

Subsistence rainfed agriculture presents the main livelihood of rural communities in Angola, mostly confined along river terrains as a result of accessibility to fertile soils and water. However, various constraints such as rainfall and recurring droughts, poor agricultural practices which lead to soil degradation, poor adoption of climate smart agricultural practices and weak institutions contribute to low crop yields. Traditional cropping practises do not yield adequately for the amount of time and effort expended.

Building on previous USAID funded Conservation Agriculture (CA) capacity building conducted with local NGO, OKACOM is working with local stakeholders to demonstrate potential benefits of CA



CA farmer inspecting his maize field

for community members and government institutions around Calai. The Project improved awareness of CA by training local farmers and providing implements which included CA adapted rippers tailor made so soil types, mouldboard ox drawn ploughs, hoes and improved seeds.

To complement the dryland CA farming, the project is currently advancing agreements with DFID funded Climate Resilient Infrastructure Development Facility (CRIDF) to install small-scale irrigation schemes to promote market linked irrigated horticulture. That will allow farmers to continue their production during dry season alternating with horticulture. Infrastructure development will include among others drilling and equipping solar powered boreholes, water efficient irrigation systems and domestic water supply coupled with provision of farming inputs and capacity building to produce higher value crops.

III. IMPROVING CONSERVATION AND SUSTAINABLE USE OF SHARED FISH RESOURCES THROUGH CO-MANAGEMENT AND ESTABLISHMENT OF FISH PROTECTED AREAS

Freshwater fisheries represent an important affordable protein source to communities living within the CORB. However, climatic and anthropogenic factors have resulted in declining fish stocks and subsequent low fish catches. Studies are showing that the fishery resources along the Cubango River which serves as boarder between Angola and Namibia are under increasing and unsustainable commercially orientated fishing pressure, to the detriment of the local communities' food security and sustainable livelihoods. One senior government official in Namibia opined that fisheries resources along the Kavango River have crushed.

Practical experiences have shown that fisheries stock can be improved by empowering local communities to support enforcing regulations or implement what suits them. OKACOM and national stakeholders are working with targeted communities along the Kavango River to implement measures aimed at countering unsustainable fishing through the establishment of Fisheries Protection Areas (FPAs). This approach is similar to the Community Based Natural Resources Management (CBNRM) approach that has led to wildlife recovering in rural communities. Among others, Fisheries Management Committees and Fisheries Management Plans are established with community participation and communities are empowered through the provision of tools and equipment to conduct patrols and enforce their regulations. Efforts are also ongoing to establish transboundary platforms at community level to ensure joint efforts are implemented to improve fisheries conservation.

IV. CONSERVATION TOURISM THROUGH STRENGTHENED PARTNERSHIPS

Namibia has well-developed protected area networks which consist of national parks, game reserves and wildlife management areas normally referred to as conservancies and well-developed protected area management policies complemented by Community Based Natural Resources Management (CBNRM) approach. CBNRM empowers rural communities to share natural resources management responsibilities and benefits with government. Despite the advanced development of CBNRM community-based concessionaire struggle to develop their concession adequately due to limited financial resources and limited business acumen. Through the SAP Implementation Project, OKACOM is demonstrating community-based conservation tourism by supporting development of a community managed Sikerete Tourism Campsite. OKACOM in partnership



with the Ministry of Environment and Tourism has recently completed the rehabilitation of 6km pine line to provide water for the Camp Site. Procurement of a construction company that will build the 16 bed and 39 campsite accommodation facility is at an advanced stage, as well as the development of the Business Plan for this Community-based tourism facility.

BASIN'S CAPACITY TO MANAGE TRANSBOUNDARY WATER RESOURCES BASED ON THE IWRM

OKACOM's mandate is to advise members on matters pertaining to management transboundary water resources in the CORB based on IWRM principles. One of the key principles of IWRM is environmental/ecological sustainability that requires that aquatic ecosystems are acknowledged as users and that adequate allocation is made to sustain their natural functioning. Achieving this criterion also requires that land uses and developments that negatively impact these systems are avoided or limited. OKACOM recognizes glaring lack of IWRM capacity within the member states. OKACOM further recognizes the lack therein of credible basin wide long term ecological/environmental and socio-economic monitoring data that can be used to inform IWRM planning and decision making. To address data paucity, OKACOM initiated the development of a comprehensive basin wide Environmental Monitoring Framework (EMS) with support from the UNDP-GEF SAP Implementation Project. Key variables that are monitored

include water quality, hydrological flows, sediment transport, aquatic macro invertebrates and biological diversity within the basin.

The development of the EMS was preceded by capacitating WRTC members through training on hydrological flows, water quality and sediment transport measurements, and provision of critical instruments which include Acoustic Doppler Current Profile (ADCP), Multi-Parameter Water Quality Meters and sediment sampling equipment. Additionally, a series of joint basin wide surveys aimed at documenting baselines data that inform the development of monitoring programmes and associated plans were conducted in 2018 and 2019. As for water quality, surveys confirmed that the quality of water within the basin is still in good standing, except in much localized cases. The surveys also confirmed spatial and temporal variability of hydrological flows and water quality parameters. The surveys also noted that relatively low abstraction levels throughout the basin. Low abstraction levels coupled with desirable quality of water throughout the basin is principles of IWRM are still held high by all stakeholders and water resources users and managers within the basin. Meanwhile, a comprehensive basin wide groundwater assessment studies is on-going, while procurement of a consortium that will conduct a sediment assessment study is at an advanced stage. Plans for the development of a basin IWRM Plan and water demand forecasting are at initial states.

PROJECT DURATION AND FUNDING

YEAR	PLANNED BUDGET (USD)	ACTUAL BUDGET (USD)	EXPENDITURE BUDGET (USD)	RESOURCE BALANCE (USD)
2017	170,000	-	(22)	22
2018	1,580,000	950,000	957,475	(7,475)
2019	1,780,000	1,650,000	1,677,073	(27,073)
2020	1,545,000	1,545,000		1,545,000
2021	1,025,000	1,500,000		1,500,000
2022	-	455,000		455,000
Total	6,100,000	6,100,000	2,634,526	3,465,474

Project Contact Information:

The Permanent Okavango River Basin Water Commission (OKACOM) | Plot 25019, Old Lobatse Road | Gaborone, Botswana
Tel: +267 316 1593 | Fax: +267 370 0231 | Visit: www.okacom.org

Nelao Haimbodi

Communication and Outreach Manager | Email: nelao@okacom.org | Tel: +267 75 691 217 |